

IN THE CLAIMS:

Claims 84, 85, and 116 have been amended herein. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-83 (canceled)

84. (amended) A solid gas generating composition formulated for generating gas suitable for use in deploying an air bag or balloon from a supplemental restraint system, the solid gas generating composition ~~comprising~~consisting essentially of:

at least one complex of a metal cation and at least one neutral ligand which comprises ammonia, wherein the metal cation is a transition metal cation or an alkaline earth metal cation, and sufficient anion to balance the charge of the metal cation;

and calcium stearate; and

optionally co-oxidizer in an amount less than 50% by weight of the solid gas generating composition.

85. (amended) A solid gas generating composition formulated for generating gas suitable for use in deploying an air bag or balloon from a supplemental restraint system, the solid gas generating composition ~~comprising~~consisting essentially of:

a complex of a metal cation and a neutral ligand containing hydrogen and nitrogen and sufficient oxidizing anion to balance the charge of the metal cation, wherein the complex is selected from the group consisting of metal nitrite amines, metal nitrate amines, metal perchlorate amines, and mixtures thereof; and

a release agent.

Claim 86 (canceled)

87. (previously presented) A gas generating composition as defined in claim 85, wherein the metal cation is a transition metal, alkaline earth metal, metalloid, or lanthanide metal cation.

88. (previously presented) A gas generating composition as defined in claim 87, wherein the transition metal cation is a cobalt cation.

89. (previously presented) A gas generating composition as defined in claim 87, wherein the metal cation is a cation of a metal selected from the group consisting of cobalt, magnesium, manganese, nickel, titanium, copper, chromium, zinc, tin, rhodium, iridium, ruthenium, palladium and platinum.

90. (previously presented) A gas generating composition as defined in claim 85, wherein the oxidizing anion is selected from the group consisting of nitrate, nitrite, chlorate, perchlorate, peroxide, and superoxide.

91. (previously presented) A gas generating composition as defined in claim 85, wherein the oxidizing anion is free of carbon.

92. (withdrawn) A gas generating composition as defined in claim 85, further comprising a binder.

93. (withdrawn) A gas generating composition as defined in claim 92, wherein the binder is water soluble.

94. (withdrawn) A gas generating composition as defined in claim 93, wherein the binder is selected from naturally occurring gums, polyacrylic acids, and polyacrylamides.

95. (withdrawn) A gas generating composition as defined in claim 92, wherein the binder is not water soluble.

96. (withdrawn) A gas generating composition as defined in claim 92, wherein the binder is selected from nitrocellulose, VAAR (vinyl acetate vinyl alcohol resin), and nylon.

97. (previously presented) A gas generating composition as defined in claim 85, wherein the complex is hexamminecobalt (III) nitrate $[(\text{NH}_3)_6\text{Co}](\text{NO}_3)_3$ and the composition further includes copper (II) trihydroxy nitrate $(\text{Cu}_2(\text{OH})_3\text{NO}_3)$.

98. (withdrawn) A gas generating composition as defined in claim 85, wherein the complex includes at least one common ligand, in addition to the ammonia ligand.

99. (withdrawn) A gas generating composition as defined in claim 98, wherein the common ligand is selected from the group consisting of aquo (H_2O), hydroxo (OH), perhydroxo (O_2H), peroxy (O_2), carbonato (CO_3), carbonyl (CO), oxalato (C_2O_4), nitrosyl (NO), cyano (CN), isocyanato (NC), isothiocyanato (NCS), thiocyanato (SCN), amido (NH_2), imido (NH), sulfato (SO_4), chloro (Cl), fluoro (F), phosphato (PO_4), and ethylenediaminetetraacetic acid (EDTA) ligands.

100. (withdrawn) A gas generating composition as defined in claim 85, wherein the complex includes a common counter ion in addition to the oxidizing anion.

101. (withdrawn) A gas generating composition as defined in claim 100, wherein the common counter ion is selected from the group consisting of hydroxide (OH^-), chloride (Cl^-), fluoride (F^-), cyanide (CN^-), thiocyanate (SCN^-), carbonate (CO_3^{2-}), sulfate (SO_4^{2-}), phosphate (PO_4^{3-}), oxalate ($\text{C}_2\text{O}_4^{2-}$), borate (BO_4^{5-}), and ammonium (NH_4^+) counter ions.

102. (previously presented) A gas generating composition as defined in claim 85, wherein the composition is formulated from ingredients comprising:

at least one complex of

a metal cation

at least one ammonia ligand, and

sufficient oxidizing anion to balance the charge of the metal complex wherein the composition contains about 50% to about 80% by weight of the complex; and the releasing agent.

103. (withdrawn) A gas generating composition as defined in claim 85, further comprising a co-oxidizer.

104. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is selected from the group consisting of alkali, alkaline earth, lanthanide or ammonium perchlorates, chlorates, peroxides, nitrites, and nitrates.

105. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is selected from the group consisting of metal oxides, metal hydroxides, metal peroxides, metal oxide hydrates, metal oxide hydroxides, metal hydrous oxides, basic metal carbonates, basic metal nitrates, and mixtures thereof.

106. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is selected from the group consisting of oxides of copper, cobalt, manganese, tungsten bismuth, molybdenum, and iron.

107. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is a metal oxide selected from the group consisting of CuO, Co₂O₃, Co₃O₄, CoFe₂O₄, Fe₂O₃, MoO₃, Bi₂MoO₆, and Bi₂O₃.

108. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is a metal hydroxide selected from the group consisting of Fe(OH)₃, Co(OH)₃, Co(OH)₂, Ni(OH)₂, Cu(OH)₂, and Zn(OH)₂.

109. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is a metal oxide hydrate or metal hydrous oxide selected from the group consisting of Fe₂O₃-xH₂O, SnO₂-xH₂O, and MoO₃H₂O.

110. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is a metal oxide hydroxide selected from the group consisting of CoO(OH)₂, FeO(OH)₂, FeO(OH)₂, MnO(OH)₂, and MnO(OH)₃.

111. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is a basic metal carbonate selected from the group consisting of CuCO₃, Cu(OH)₂

(malachite), $2\text{Co}(\text{CO}_3) \cdot 3\text{Co}(\text{OH})_2 \cdot \text{H}_2\text{O}$, $\text{Co}_{0.69}\text{Fe}_{0.34}(\text{CO}_3)_{0.2}(\text{OH})_2$, $\text{Na}_3[\text{Co}(\text{CO}_3)_3]3\text{H}_2\text{O}$, $\text{Zn}_2(\text{CO}_3)(\text{OH})_2$, $\text{Bi}_2\text{Mg}(\text{CO}_3)_2(\text{OH})_4$, $\text{Fe}(\text{CO}_3)_{0.12}(\text{OH})_{2.76}$, $\text{Cu}_{1.54}\text{Zn}_{0.46}(\text{CO}_3)(\text{OH})_2$, $\text{CO}_{0.49}\text{Cu}_{0.51}(\text{CO}_3)_{0.43}(\text{OH})_{1.1}$, $\text{Ti}_3\text{Bi}_4(\text{CO}_3)_2(\text{OH})_2\text{O}_9(\text{H}_2\text{O})_2$, and $(\text{BiO})_2\text{CO}_3$.

112. (withdrawn) A gas generating composition as defined in claim 103, wherein the co-oxidizer is a basic metal nitrate selected from the group consisting of $\text{Cu}_2(\text{OH})_3\text{NO}_3$, $\text{Co}_2(\text{OH})_3\text{NO}_3$, $\text{CuCo}(\text{OH})_3\text{NO}_3$, $\text{Zn}_2(\text{OH})_3\text{NO}_3$, $\text{Mn}(\text{OH})_2\text{NO}_3$, $\text{Fe}_4(\text{OH})_{11}\text{NO}_3 \cdot 2\text{H}_2\text{O}$, $\text{Mo}(\text{NO}_3)_2\text{O}_2$, $\text{BiONO}_3 \cdot \text{H}_2\text{O}$, and $\text{Ce}(\text{OH})(\text{NO}_3)_3 \cdot 3\text{H}_2\text{O}$.

113. (withdrawn) A gas generating composition as defined in claim 85, further comprising a carbon powder present from 0.1% to 6% by weight of the gas generating composition.

114. (previously presented) A gas generating composition as defined in claim 86, wherein the complex is selected from the group consisting of metal nitrate amines.

115. (previously presented) A gas generating composition as defined in claim 114, wherein the release agent comprises graphite, molybdenum sulfide, calcium stearate or boron nitride.

116. (amended) A solid gas generating composition formulated for generating gas suitable for use in deploying an air bag or balloon from a supplemental restraint system, the solid gas generating composition ~~comprising~~ consisting essentially of:

a complex of a metal cation and a neutral ligand containing hydrogen and nitrogen and sufficient oxidizing anion to balance the charge of the metal cation, wherein the complex is

selected from the group consisting of metal nitrite ammines, metal nitrate ammines, metal perchlorate ammines, and mixtures thereof;

wherein the composition contains from 48.5% to less than 100% of the complex, and the composition contains a release agent.

117. (previously presented) A solid gas generating composition according to claim 85, wherein when the composition combusts, the combustion takes place at a rate and a temperature sufficient to qualify the composition for use as a gas generating composition to generate gas suitable for use in deploying the air bag or the balloon.